

NTCPC Utility

This section describes the NTCPC utility with which you can download and upload objects between the mainframe and a PC:

- Invoking the NTCPC Utility
- Source Code
- Object Code
- Data Definition Module
- Data Area

Note:

To download to or upload from a PC, you must be using the NTCPC utility from a PC and the PC connection must be active.

Invoking the NTCPC Utility

To invoke the NTCPC utility, enter the following command at the NEXT prompt in Natural:

NTCPC

The following main menu appears:

14:38:30	***** NATURAL NTCPC UTILITY *****	1999-09-21
User KOL	- Main Menu -	
	Code Function	
	S Source Code	
	O Object Code	
	D Data Definition Module	
	A Data Area	
	? Help	
	. Exit	
	Code .. _	
Command ==>		
Enter-PF1---	PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---	PF10---PF11---PF12---
Help	Exit	Canc

Within the NTCPC utility, online help is available

- at the general level: place the cursor anywhere on the screen and press PF1, and
- at field level: place the cursor on a field and press PF1, or enter a question mark (?) in a field and press ENTER.

On this main menu, you can select one of the object types you wish to download/upload by entering the corresponding code in the Code field. On the following pages, the various possibilities are explained in detail.

Source Code

If you enter S on the main menu, the following submenu appears:

```

14:41:36          ***** NATURAL NTCPC UTILITY *****          1999-09-21
User KOL              - Source Code -

                                Code  Function
                                D      Download to PC
                                B      Download binary to PC
                                M      Download Map with Free Rules to PC
                                U      Upload from PC
                                Y      Upload binary from PC
                                R      Upload from PC and RUN
                                ?      Help
                                .      Exit

                                Code .. _

Source code .... _____ Library ..... KOL_____
Replace (Y/N) .. N          Type (P/N/S/H/C/K/T/M/4) .. P

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Menu  Exit                                Canc

```

This menu offers the following possibilities:

Code	Function
D	Download the source code of an object to the PC.
B	Download the source code of an object in binary format to the PC.
M	Download the source code of a map to the PC. If the map uses free rules, they are included in the source code that is downloaded. The prerequisite is that Predict is installed.
U	Upload the source code of an object from the PC.
Y	Upload the source code of an object in binary format from the PC.
R	Upload (but not save) the source code of an object from the PC and execute (run) the object.

Parameter	Explanation
Source code	The name of the source code you wish to download/upload.
Library	The Natural library that contains the source code you wish to download, or the library into which you wish to upload the code.
Replace (Y/N)	<p>This field is only required when uploading.</p> <p>Y means that if a program of the same name is already in the target library, it will be overwritten.</p> <p>N means that a program of the same name will not be overwritten. If duplicate names are detected, the corresponding message appears.</p>
Type	<p>This field is only required when uploading. You can select one of the following source code types:</p> <p>P Program</p> <p>N Subprogram</p> <p>S Subroutine</p> <p>H Helproutine</p> <p>C Copycode</p> <p>K Server</p> <p>T Text</p> <p>M Map</p> <p>4 Class</p>

Example - Downloading Source Code to the PC:

To download source code to the PC, fill in the menu as in the example below and press ENTER.

14:41:36	***** NATURAL NTCPC UTILITY *****	1999-09-21																		
User KOL	- Source Code -																			
<table border="0"> <thead> <tr> <th>Code</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>D</td> <td>Download to PC</td> </tr> <tr> <td>B</td> <td>Download binary to PC</td> </tr> <tr> <td>M</td> <td>Download Map with Free Rules to PC</td> </tr> <tr> <td>U</td> <td>Upload from PC</td> </tr> <tr> <td>Y</td> <td>Upload binary from PC</td> </tr> <tr> <td>R</td> <td>Upload from PC and RUN</td> </tr> <tr> <td>?</td> <td>Help</td> </tr> <tr> <td>.</td> <td>Exit</td> </tr> </tbody> </table>			Code	Function	D	Download to PC	B	Download binary to PC	M	Download Map with Free Rules to PC	U	Upload from PC	Y	Upload binary from PC	R	Upload from PC and RUN	?	Help	.	Exit
Code	Function																			
D	Download to PC																			
B	Download binary to PC																			
M	Download Map with Free Rules to PC																			
U	Upload from PC																			
Y	Upload binary from PC																			
R	Upload from PC and RUN																			
?	Help																			
.	Exit																			
Code .. d																				
Source code downlfil	Library	KOL_____																		
Replace (Y/N) .. N	Type (P/N/S/H/C/K/T/M/4) .. P																			
Command ==>																				
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---																				
Help Menu Exit Canc																				

A window appears in which you enter the name of the PC file to which you wish to download the source code. It is not necessary to define an extension for the PC file, as the extension .NCD is automatically inserted.

When you press ENTER, a message appears indicating that your data are being downloaded. If the name of the PC file you specified already exists on your PC, you are asked whether you want to overwrite the file. When download is complete, the source code is stored on your PC and can be manipulated using a PC editor.

Object Code

If you enter O on the main menu, the following submenu appears:

```

14:46:54          ***** NATURAL NTCPC UTILITY *****          1999-09-21
User KOL              - Object Code -

                Code  Function
                D      Download to PC
                U      Upload from PC
                ?      Help
                .      Exit

                Code .. _

Object code .... _____ Library .. KOL_____
Replace (Y/N) .. N

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
      Help  Menu  Exit                                Canc

```

This menu offers the following possibilities:

Code	Function
D	Download the object code of an object to the PC.
U	Upload the object code of an object from the PC.

Parameter	Explanation
Object code	The name of the object code you wish to download/upload.
Library	The Natural library that contains the object code you wish to download, or the library into which you wish to upload the code.
Replace (Y/N)	<p>This field is only required when uploading.</p> <p>Y means that if a program of the same name is already in the target library, it will be overwritten.</p> <p>N means that a program of the same name will not be overwritten. If duplicate names are detected, the corresponding message appears.</p>

Example - Uploading Object Code from the PC

To upload object code from the PC, fill in the menu as in the example below and press ENTER.

14:46:54	***** NATURAL NTCPC UTILITY *****	1999-09-21
User KOL	- Object Code -	
Code	Function	
D	Download to PC	
U	Upload from PC	
?	Help	
.	Exit	
Code .. u		
Object code obj_____	Library .. KOL_____	
Replace (Y/N) .. N		
Command ==>		
Enter-PF1---	PF2---	PF3---
PF4---	PF5---	PF6---
PF7---	PF8---	PF9---
PF10---	PF11---	PF12---
Help	Menu	Exit
		Canc

When you press ENTER, a message appears indicating that your data are being uploaded. When upload is complete, the object code can be executed on the mainframe.

Data Definition Module

If you enter D on the main menu, the following submenu appears:

```

14:49:09          ***** NATURAL NTCPC UTILITY *****          1999-09-21
User KOL          - Data Definition Module -

                Code  Function

                D      Download to PC
                B      Download binary to PC
                U      Upload from PC
                Y      Upload binary from PC
                ?      Help
                .      Exit

                Code .. _

DDM Name .....
Replace (Y/N) .. N      Accept existing DBID/FNR (Y/N) .. Y
                        Accept 5-digit DBID/FNR (Y/N) ... N

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Menu  Exit                                Canc

```

This menu offers the following possibilities:

Code	Function
D	Download the source code of a DDM to the PC.
B	Download the DDM in binary format to the PC.
U	Upload the source code of a DDM from the PC.
Y	Upload a DDM in binary format from the PC.

Parameter	Explanation
DDM Name	The name of the DDM you wish to download/upload.
Replace (Y/N)	This field is only required when uploading. Y means that if a DDM of the same name already exists, it will be overwritten. N means that a DDM of the same name will not be overwritten. If duplicate names are detected, the corresponding message appears.
Accept existing DBID/FNR (Y/N)	Y means that the DBID/FNR already defined for the DDM will be used. N means that the DBID/FNR already defined for the DDM are not to be used automatically. In this case, a window showing the DBID/FNR appears. You can modify the DBID/FNR in this window, considering your specification for the "Accept 5-digit DBID/FNR" parameter.
Accept 5-digit DBID/FNR (Y/N)	With Natural Version 2.3, DBID and FNR can be greater than 255 and can be up to five digits long. If the receiving platform is of an earlier Natural version, set this parameter to N. Y means that a DBID/FNR greater than 255 is allowed. N means that a DBID/FNR greater than 255 is not allowed. If a DBID/FNR greater than 255 is detected, a window appears (independent of your specification for the "Accept existing DBID/FNR" parameter), showing the DBID/FNR. You must modify the DBID/FNR.

Example 1 - Downloading a DDM to the PC:

The same DBID/FNR are to be used on the receiving platform. However, you want to make sure that a DDM with DBID/FNR greater than 255 will not be transferred.

You specify the following:

```
Accept existing DBID/FNR (Y/N) .. Y
Accept 5-digit DBID/FNR (Y/N) ... N
```

If the downloaded DDM gets a DBID/FNR greater than 255, a window appears in which you have to specify an appropriate DBID/FNR.

Example 2 - Downloading a DDM to the PC:

You want to modify the DBID/FNR of the DDM and want to make sure that a DBID/FNR greater than 255 will not be accepted.

You specify the following:

```
Accept existing DBID/FNR (Y/N) .. N
Accept 5-digit DBID/FNR (Y/N) ... N
```

A window appears, showing the DBID/FNR. You can only specify a value up to 255.

Data Area

If you enter A on the main menu, the following submenu appears:

```

14:50:44          ***** NATURAL NTCPC UTILITY *****          1999-09-21
User KOL              - Data Area -

                                Code  Function
                                D      Download to PC
                                U      Upload from PC
                                ?      Help
                                .      Exit

                                Code .. _

Data Area Name .. _____ Library ..... KOL_____
Replace (Y/N) ... N          Type (G/A/L) .. L

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Menu  Exit                                Canc

```

This menu offers the following possibilities:

Code	Function
D	Download the source code of the data area to the PC.
U	Upload the source code of the data area from the PC. The fields "Replace (Y/N)" and "Type (G/A/L)" must be filled in when uploading.

Parameter	Explanation
Data Area Name	The name of the data area you wish to download/upload.
Library	The Natural library that contains the data area you wish to download, or the library into which you wish to upload the data area.
Replace (Y/N)	<p>This field is only required when uploading.</p> <p>Y means that if a data area of the same name already exists, it will be overwritten.</p> <p>N means that a data area of the same name will not be overwritten. If duplicate names are detected, the corresponding message appears.</p>
Type (G/A/L)	<p>This field is only required when uploading. You can select one of the following types of data area:</p> <p>G Global data area</p> <p>A Parameter data area</p> <p>L Local data area</p> <p>The data area is uploaded from the PC directly into the data area editor of the specified type, where you can review/modify the data area.</p>